

## Floodplain Management Plans

### Definition

Floodplain management addresses the hazard risk of communities partially or entirely located in a floodplain. The term also refers to the application of structural mitigation measures and codes to existing or proposed buildings in the floodplain.

### Implementation

Studies of successful floodplain management efforts have shown several things: first, developers should be made aware of the regulations before they subdivide land in the floodplain, since this allows them a chance to create parcels that are in compliance. Second, the best time to encourage businesses and residents to retrofit or relocate is in the immediate aftermath of the flood. Third, local mitigation programs often exceed National Flood Insurance Program (NFIP) standards for elevation or relocation. Fourth, pressure to develop in the floodplain is lessened when other options are available<sup>78</sup>.

Structures built in the floodplain are subject to damage by rising waters. In addition to increasing the number of properties at risk, development in the floodplain reduces the flood storage capacity of these areas, resulting in greater flood heights. Communities should consider the relocation, elevation or acquisition of buildings in the floodplain. Floodplain management should include structural measures, such as building, rebuilding and retrofitting codes for flood-prone structures. At a minimum, elevation and relocation guidelines should meet NFIP standards.

Floodplain management should incorporate an ecosystem approach to land-use planning. Left to their natural function, floodplains can reduce or absorb seasonal peaks and floods. This function can be encouraged by reserving floodplains for this purpose. Planners may find that conserving floodplain lands can also achieve other environmental goals, such as providing open space and habitat or filtering stormwater runoff. Land susceptible to flooding may be appropriate for limited human uses, such as parks and recreational areas. (See Vegetation and Acquisition.)

A floodplain management plan might define a floodplain overlay district in which specific regulations would apply; it might identify specific properties to be acquired for relocation or wetlands protection; or it might propose structural interventions, such as dikes or levees<sup>79</sup>. Floodplain regulations should restrict development that would increase flood heights<sup>80</sup>.

*Plans, Floodplain Management*

*See Also: Vegetation*

*See Also: Wetlands Preservation and*

*Riparian Habitat Protection*

### Index Listing

#### Hazard:

- Flash Flooding
- Flooding
- Hurricane
- Nor'easter
- Thunderstorm

#### Activity:

- Engineering
- Town/City Manager
- Planning
- Public Works

#### CRS-Compatible Activity:

- 510: Floodplain Management Planning

#### North Carolina Region:

- Statewide

### Examples:

- The Association of State Floodplain Managers has a new policy called, "No Adverse Impact." The policy calls for balancing structural and nonstructural flooding solutions to ensure that no construction in a watershed will adversely impact other property by increasing flood depths or velocities upstream or down. For information, read a 2001 paper online by the ASFPM's Executive Director Larry Larsen and consultant Doug Plasencia at <http://www.ci.lincoln.ne.us/city/pworks/NAIpaper.pdf>.
- Studies following the 1993 Midwest Floods recommended wetlands preservation as a method of mitigating flood hazards<sup>81</sup>. This approach has been used successfully along the Charles River in Boston, where the acquisition and conservation of wetlands precluded the need for expensive flood prevention structures<sup>82</sup>.